DETAILED ACTION

Response to Amendment

1. Receipt of Applicant's Amendment filed 06/02/09 is acknowledged.

Information Disclosure Statement

2. The Information Disclosure Statement filed on 6/25/09, 5/20/09, 4/21/09, and 2/27/09 are considered.

EXAMINER'S AMENDMENT

3. Authorization for this examiner's amendment was given in a telephone interview with Ms. YenYun Fu (RN 59,141) on August 10, 2009.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

1. (Currently Amended) A method of semantically representing a target entity using a semantic object, the method comprising:

identifying a set of meta-tags having associated metadata entries to represent attributes associated with the target entity in the semantic object, the semantic object being stored on a computer-readable storage medium;

wherein at least one meta-tag of the set of meta-tags is defined using an ontology;

storing in a ~~first~~ metadata entry in the semantic object on the computer-readable storage medium an attribute including an access policy that specifies how the semantic object is shared over a network;

~~storing, in a second metadata entry in the semantic object on the computer-readable storage medium, another attribute that specifies a first user that is an author of the semantic object;~~

sharing, over a network, the semantic object with a ~~second~~ user via a computational device in accordance with the access policy of the semantic object; ~~and~~

displaying the semantic object on a display screen of the computational device; [[,]]

creating a second semantic object to represent information resource or tacit information, the second semantic object comprising meta-tags which identify semantic information and rules regarding at least one of: how the second semantic object (i) interacts with, (ii) is manipulated by, and (iii) is displayed to human beings and automated processes;

seeking to detect the information resource containing information that is represented by the second semantic object;

linking the second semantic object to the information resource to represent the information resource using the second semantic object;

wherein the second semantic object is configured to have a link to or from any number of other semantic objects.

2. (Cancelled)

3. (Cancelled)

4. (Currently Amended) The method of claim [[3]] 1, ~~wherein the information resource is found, the method~~ further comprising providing the second semantic object with meta-data about the information resource.

5. (Currently Amended) The method of claim [[3]] 1, wherein when the information resource is not found~~, and wherein~~ the second semantic object represents the tacit information.

6. (Currently Amended) The method of claim [[3]] 1, wherein the second semantic object is created before seeking to detect the information resource.

7. (Currently Amended) The method of claim [[3]] 1, wherein the information resource is detected before creating the second semantic object.

8. (Previously Presented) The method of claim 7, wherein the information resource is detected upon the information resource being published on the Internet.

9. (Previously Presented) The method of claim 8, wherein any entity that publishes the information resource triggers the creation of the second semantic object.

10. – 12. (Cancelled)

13. (Currently Amended) The method of claim [[3]] 1, further comprising linking the second semantic object to at least one of the other semantic objects in the computer-readable storage medium.

14. (Previously Presented) The method of claim 1, wherein the semantic object represents a physical entity comprising, one or more of, a living organism, a person, a place, an organization, a corporation, an object, a physical item, a processor, a machine, a natural entity, and an artificial entity.

15. (Previously Presented) The method of claim 1, wherein the semantic object represents a digital object comprising, one or more of, a document, an email, an address book entry, a message, an instant message, a query, a discussion thread, a posting, an XML message, a file, a directory, multimedia content, a website, a web-page, a blog, and a data record.

16. (Previously Presented) The method of claim 1, wherein the semantic object represents intangible entity comprising, one or more of, a relationship, an interaction, a link, a semantic relationship, a keyword relationship, a personal relationship, a connection, a transaction, an event, a type of activity, knowledge, content, an idea, and a concept.

17. (Cancelled)

18. (Currently Amended) The method of claim 1 wherein the set of meta-tags are identified at least partially based on ~~the~~ an object type of the target entity that the semantic object represents.

19. (Previously Presented) The method of claim 1, wherein the set of attributes of the target entity further comprises policies regarding one or more of interaction with the target entity, manipulation of the target entity, and presentation of the target entity.

20. (Previously Presented) The method of claim 1, wherein the semantic object is machine-readable or human-readable.

21. (Currently Amended) The method of claim 1, wherein the metadata entry is user-specified or machine-specified.

22. (Currently Amended) The method of claim 1, wherein the metadata entry is retrieved on-demand.

23. (Cancelled)

24. (Previously Presented) The method of claim 1, wherein the semantic object is automatically generated by the computational device.

25. (Currently Amended) The method of claim 1, wherein the metadata entry represents one or more of:

a link to a second target entity having ~~a first~~ an identified relationship matching ~~one of a predetermined set of~~ a semantic or a peer relationship[[s]]. ~~and~~

~~a link from a third target entity having a second identified relationship matching one of the predetermined set of semantic or peer relationships.~~

26. (Currently Amended) The method of claim 25, wherein ~~one or more of~~ the ~~first~~ identified relationship ~~and the second identified relationship~~ is detected from a user triggered event.

27. (Currently Amended) The method of claim 25, wherein ~~one or more of~~ the ~~first~~ identified relationship ~~and the second identified relationship~~ is user-specified.

28. (Currently Amended) The method of claim 18, wherein the metadata entry provides data about the structure of the semantic representation.

29-35. (Cancelled)

36. (New) The method of claim 1, wherein, the set of meta-tags used to represent the target entity are identified manually.

37. (New) The method of claim 1, wherein, the set of meta-tags used to represent the target entity are identified by automatic selection from a plurality of meta-tags.

38. (Currently Amended) The method of claim 37, further comprising, performing the automatic selection according to a heuristic rule.

39. (New) The method of claim 38, wherein, the heuristic rule is determined based on popularity of each of the plurality of meta-tags with a group of authors or users.

40. (Currently Amended) The method of claim 1, further comprising, storing, in a second metadata entry in the semantic object on the computer-readable storage medium, an identity section which ~~wherein, the identity section further~~ specifies an owner of the semantic object.

41. (Currently Amended) The method of claim [[1]] 40, wherein, the identity section further specifies a recipient individual or a recipient group of the semantic object.

42. (New) The method of claim 41, wherein, the identity section further specifies a fuzzy definition of a set of qualifications of the recipient individuals or the recipient group of the semantic object.

43. (Currently Amended) The method of claim [[1]] 40, wherein, the identity section further specifies a list of users who has modified the semantic object.

44. (Currently Amended) The method of claim 43, wherein, the list of users further includes users who have performed, one or more of, copied, received, and deleted the semantic object.

45. (Currently Amended) The method of claim [[1]] 40, wherein, the identity section further specifies one or more of, parties who have rated the semantic object and parties who have annotated the semantic object.

46. (Currently Amended) The method of claim [[1]] 40, wherein, the identity section further specifies parties that have been matched to the semantic object.

47. (Currently Amended) The method of claim [[1]] 40, wherein, the semantic object includes a link to a display specification.

48. (New) The method of claim 47, wherein, the display specification is determined based on the display device used for viewing the semantic object.

49. (New) The method of claim 47, wherein, the display specification is represented by another semantic object.

50. (Currently Amended) The method of claim [[15]] 1, wherein, the ~~digital object comprises~~ semantic object represents streaming media.

51. (Currently Amended) The method of claim [[15]] 1, wherein, the ~~digital object comprises~~ semantic object represents an advertisement.

52. (Currently Amended) The method of claim [[15]] 1, wherein, the ~~digital object comprises~~ semantic object represents a web site or web page.

53. (Currently Amended) The method of claim 1, wherein, the semantic object is manually generated by ~~the~~ an author; and

wherein, at least one metadata entry of the semantic object is provided by the author.

54. (Currently Amended) The method of claim 53, wherein, a description and a comment of the target entity represented by the semantic object is provided by the author.

55. (Currently Amended) The method of claim [[53]] 1, wherein, ~~another~~ the metadata entry is automatically identified by the computational device.

56. (Currently Amended) The method of claim [[24]] 1, wherein, the computational device data mines the Internet to generate the semantic object.

57. (Cancelled)

58. (Cancelled)

59. (Cancelled)

60. (Currently Amended) A system for semantically representing a target entity using a semantic object, the system, comprising,

a set of computing devices connected via a network;

wherein, one of the set of computing devices:

identifies a set of meta-tags having associated metadata entries to represent attributes associated with the target entity in the semantic object;

wherein at least one meta-tag of the set of meta-tags is defined using an ontology;

stores in a metadata entry of the semantic object, an attribute including an access policy that specifies how the semantic object is shared over the network among the set of computing devices;

shares, over the network, the semantic object with a user in accordance with the access policy of the semantic object;

creates a second semantic object to represent information resource or tacit information, the second semantic object comprising meta-tags which identify semantic information and rules regarding at least one of: how the second semantic object (i) interacts with, (ii) is manipulated by, and (iii) is displayed to human beings and automated processes;

seeks to detect the information resource containing information that is represented by the second semantic object;

links the second semantic object to the information resource to represent the information resource using the second semantic object;

wherein the second semantic object is configured to have a link to or from any number of other semantic objects.

~~means for automatically selecting, according to a heuristic rule, a set of meta-tags from multiple meta-tags to represent a set of attributes of the target entity in the semantic object~~

~~means for determining the heuristic rule being determined based on popularity of the multiple meta-tags with a group of users;~~

~~wherein a meta-tag of the set of meta-tags is defined using an ontology;~~

~~means for storing in a first metadata entry in the semantic object, an attribute including an access policy that specifies how the semantic object is shared over a network;~~

~~means for storing, in a second metadata entry in the semantic object, another attribute that specifies an author of the semantic object;~~

~~means for storing, in a third metadata entry in the semantic object, another attribute that specifies a recipient individual or a recipient group of the semantic object;~~

~~means for sharing, over a network, the semantic object with the recipient individual or the recipient group.~~

61. (Currently Amended) The system of claim 60,

wherein the set of meta-tags used to represent the target entity are identified by automatic selection from a plurality of meta-tags; and

wherein the automatic selection is performed according to a heuristic rule determined based on popularity of each of the plurality of meta-tags with a group of authors or users.

62. (Currently Amended) A machine-readable storage medium having stored thereon a set of instructions which when executed by a computing device performs a method of semantically representing a target entity using a semantic object, the method comprising:

identifying a set of meta-tags having associated metadata entries to represent attributes associated with the target entity in the semantic object, the semantic object being stored on a computer-readable storage medium;

wherein at least one meta-tag of the set of meta-tags is defined using an ontology;

storing in a metadata entry in the semantic object on the computer-readable storage medium an attribute including an access policy that specifies how the semantic object is shared over a network;

sharing, over a network, the semantic object with a user via a computational device in accordance with the access policy of the semantic object;

displaying the semantic object on a display screen of the computational device;

creating a second semantic object to represent information resource or tacit information, the second semantic object comprising meta-tags which identify semantic information and rules regarding at least one of: how the second semantic object (i) interacts with, (ii) is manipulated by, and (iii) is displayed to human beings and automated processes;

seeking to detect the information resource containing information that is represented by the second semantic object;

linking the second semantic object to the information resource to represent the information resource using the second semantic object;

wherein the second semantic object is also configured to have a link to or from any number of other semantic objects.

~~automatically identifying a set of meta-tags having associated metadata entries to represent attributes associated with the target entity in the semantic object that is stored on a computer-readable storage medium;~~

~~wherein a meta-tag of the set of meta-tags is defined using an ontology;~~

~~storing, in a first metadata entry in the semantic object on the computer-readable storage medium, an attribute including an access policy that specifies how the semantic object is shared over a network;~~

~~storing, in a second metadata entry in the semantic object on the computer-readable storage medium, another attribute that specifies a display specification;~~

~~wherein, the display specification is determined based on a display device used for viewing the semantic object;~~

~~displaying the semantic object on the display device according to the display specification.~~

63. (Currently Amended) The ~~method~~ machine-readable storage medium of claim 62, further comprising, mining the Internet to generate the semantic object. ~~wherein, the display specification is represented by another semantic object linked by the semantic object.~~

Remarks

4. Claims 1 and 62 respectively recite "a computer-readable storage medium" and "a machine-readable storage medium", wherein the Office considers the term "medium" as excluding carrier wave, signal, transmission media, or any form of energy, such that the claims clearly fall within a statutory class of invention as required under the terms of 35 U.S.C. 101.

Allowable Subject Matter

5. Claims 1, 4-9, 13-16, 18-22, 24-28, 36-56 and 60-63 are allowed and are renumbered as 1-46.

The following is an examiner's statement of reasons for allowance: Claims 1, 4-9, 13-16, 18-22, 24-28, 36-56 and 60-63 are allowable because the prior art made of record does not teach or fairly suggest the combination of elements as recited in independent Claims 1, 60 and 62.

Specifically, the prior art of record does not teach:

- creating a second semantic object to represent information resource or tacit information, the second semantic object comprising meta-tags which identify semantic information and rules regarding at least one of: how the second semantic object (i) interacts with, (ii) is manipulated by, and (iii) is displayed to human beings and automated processes taken with the other limitations as recited in Claim 1.
- creates a second semantic object to represent information resource or tacit information, the second semantic object comprising meta-tags which identify semantic information and rules regarding at least one of: how the second semantic object (i) interacts with, (ii) is manipulated by, and (iii) is displayed to human beings and automated processes taken with the other limitations as recited in Claim 60.
- creating a second semantic object to represent information resource or tacit information, the second semantic object comprising meta-tags which identify

semantic information and rules regarding at least one of: how the second semantic object (i) interacts with, (ii) is manipulated by, and (iii) is displayed to human beings and automated processes taken with the other limitations as recited in Claim 62.

The dependent claims being definite, further limiting and fully enabled by the Specification are also allowed.

These features, together with the other limitations of the independent claim are novel and non-obvious over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh-Ha Dang whose telephone number is 571-272-4033. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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August 11, 2009

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